TEMPORARY TRENCH PATCHING NOTES

Revised January 2022

1. If trench work is completed in a single day, it must be backfilled and surface restored per applicable utility plan unless approved by City Public Works. If trench work goes over a day, steel plating is required, reference City Standard Plan ST-TRE-6.
2. All dimensions based on stable trench, stability to be determined by design engineer.
3. Plates shall be American Society for Testing and Materials (ASTM) A36 min. Steel, final yield (fy) equals 36 kips per square inch (ksi). Plates must be capable of withstanding, at minimum, American Association of State Highway and Transportation Officials (AASHTO) HS-20 loading.
4. Plates shall require anchorage regardless of slope or speed. Flanges or angle irons must be welded to the plate underside conforming to the size of the street opening to ensure the plate does not move relative to the opening.
5. Plates must be placed with positive contact on all supporting surfaces to prevent accidental movement from traffic deflection (cold patch can be used to displace any voids between plate and supporting surface).
6. In general, where a steel plate covers an excavation or opening, the Contractor must ensure the steel plate withstands the traffic loading, remains in place over the opening, does not rock, does not generate noise, and is fully supported for the length of time the plate is in-place.
7. Where spans are excessively long or where multiple steel plates are required to cover a long span, adequate additional support beneath the plates must be provided, such as braced steel beams. The space between the steel beam and the plate must be covered with a material, such as an old carpet, to prevent rattling and noise.
8. All steel plates must be bedded on temporary pavement patch material or other suitable material that extends beyond the plate's edge to form a tapered transition (shim). The taper must provide a smooth, gradual transition between pavement and the plate at least 18 inches in length to accommodate wheelchair, bicycle, and other traffic.
9. Safety Orange paint (Federal Standard 595 Color 595 FS 12246 or approved equal) must be used for:
    a. Highlighting the edges of all plates, 12-inch minimum width.
    b. Highlighting all tapered transition shims with paint stripes approximately 2 inches wide on 16-inch centers.
10. When directed by the Engineer, the Contractor must use steel pins welded at the corners of the plate. When pins are used, holes must be drilled through an opening in the plate full depth into underlying pavement structure. The pins must be long enough to be driven full depth of pavement and be of cross-section to be snug in the holes. The pin head must be of sufficient area and mass to allow for welding the pin to the plate with sufficient strength of weld ensuring the pin does not pop up, come loose, or separate from the plate at any time.
11. Steel plates must have a permanent non-skid surface in both dry and wet conditions and must supply even coverage across the plate. Sweep abrasive blast surfaces to be coated to provide a 2 Mil profile. Non-skid surface shall be applied in the shop before delivery to the field. Material

shall be as follows:

- Primer: Tnemec Series N69F Epoxoline One coat, 4.0 to 6.0 Mil DFT.
- Non-Skid: Broadcast dry washed silica sand 50-60 mesh into wet prime coat. Let dry and remove excess sand.
- Finish: Tnemec Series 73 or 1095 EnduraShield One coat, 3.0 to 5.0 Mil DFT.
  OR
- Primer: Sherwin Williams Macropoxy 646 One coat, 4.0 to 6.0 Mil DFT.
- Non-Skid: Broadcast dry washed silica sand 50-60 mesh into wet prime coat. Let dry and remove excess sand.
- Finish: Sherwin Williams Acrolon 218 HS One coat, 3.0 to 5.0 Mil DFT.

Acronyms and Terms	**Definition**
AASHTO	American Association of State Highway and Transportation Officials
ASTM	American Society for Testing and Materials
Fy	Final yield
ksi	kip per square inch
HS	AASHTO Load Designation, Truck with Trailer
Shim	Tapered transition